1. (THREE TIMES AMENDED) A device comprising:

a one-piece outer portion comprising an electrically insulative material and having dimensions effective (i) to prevent or inhibit plasma arcing to an electrically conductive surface of a plasma processing chamber aperture and (ii) to fit securely into said plasma processing chamber aperture, said one-piece outer portion further comprising:

(i) a flange section configured to remain outside of said plasma processing chamber aperture; and

(ii) an inner opening communicating through the electrically insulative material between a bottom and a top of the outer portion, the inner opening having dimensions effective to enable transmission of any of a physical signal, a gas, a gas mixture and other material through the device.

2. A plasma processing chamber having:

at least one aperture therein, the at least one aperture having an exposed electrically conductive surface, and

the device of Claim 1, located inside the aperture.

3. A method of making a plasma processing chamber, the chamber having at least one aperture therein, the at least one aperture having an exposed electrically conductive surface, the

method comprising inserting the device of Claim 1 into the aperture.

4. A method of processing a workpiece, comprising the following steps:

(A) exposing the workpiece to a plasma in the chamber of Claim 2; and

(B) transmitting a physical signal or a gas, gas mixture or other material through the device into or out from the chamber.

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5. (THREE TIMES AMENDED) A plasma processing chamber having:

at least one aperture therein, the at least one aperture having an exposed electrically conductive surface, and

a one-piece sleeve inside the aperture, the one-piece sleeve comprising an electrically insulative material and having:

(i) dimensions effective to prevent or inhibit plasma arcing to the exposed electrically conductive surface of the aperture and to fit securely into the aperture;

(ii) a flange section configured to remain outside said aperture; and

(iii) an inner opening communicating through the electrically insulative material from a bottom to a top of the one-piece sleeve, the inner opening having dimensions effective to

enable transmission of any of a physical signal, a gas, a gas mixture and other material through the device.

6. (THREE TIMES AMENDED) A method of making a plasma processing chamber, the chamber having at least one aperture therein, the at least one aperture having an exposed electrically conductive surface, the method comprising inserting a one-piece sleeve into the aperture, the one-piece sleeve comprising an electrically insulative material and having:

(i) dimensions effective to prevent or inhibit plasma arcing to the exposed electrically conductive surface of the aperture and to fit securely into said aperture;

(ii) a flange section configured to remain outside said aperture; and

(iii) an inner opening communicating through the electrically insulative material between a bottom and a top of the one-piece sleeve, the inner opening having dimensions effective to enable transmission of any of a physical signal, a gas, a gas mixture and other material through the one-piece sleeve.

7. (AMENDED) The method of Claim 6, further comprising, prior to inserting said one-piece sleeve, the step of forming said one-piece sleeve to match one or more dimensions of said aperture in said chamber.

8. (THREE TIMES AMENDED) A method of processing a workpiece, comprising:

(A) exposing the workpiece to a plasma in a chamber, the chamber having at least one aperture therein, the at least one aperture having

1) an exposed electrically conductive surface, and

2) a one-piece sleeve in the aperture, the one-piece sleeve comprising an electrically insulative material and having

(i) dimensions effective to prevent or inhibit plasma arcing to the exposed electrically conductive surface of the aperture and to fit securely into said aperture,

(ii) a flange section configured to remain outside said aperture, and

(iii) an inner opening communicating through the electrically insulative material between a bottom and a top of the one-piece sleeve, the inner opening having dimensions effective to enable transmission of any of a physical signal, a gas, a gas mixture and other material through the device; and

(B) transmitting any of a physical signal, a gas, a gas mixture and other material through the device in to or out from the chamber.

9. A method of operating a plasma processing chamber, wherein the chamber has at least one aperture therein and the aperture has an exposed electrically conductive surface, the method comprising the steps of:

(A) initiating a plasma in the chamber, the aperture having the device of Claim 1 therein, then

(B) cleaning the chamber and the device.

10. The method of Claim 9, wherein said plasma exists in said chamber for a predetermined period of time.

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11. (TWICE AMENDED) The method of Claim 9, further comprising, prior to step B, the steps of:

exposing a workpiece to the plasma, and

transmitting any of a physical signal, a gas, a gas mixture and other material through the device into or out from the chamber.

12. (TWICE AMENDED) The device according to claim 1, wherein said one-piece outer portion further comprises:

a lower section having a first width effective to fit the plasma processing chamber aperture within a predefined tolerance; and

said flange section has a second width that is greater than a corresponding width of said plasma processing chamber aperture.

13. (TWICE AMENDED) The device according to claim 12, wherein said device is held in said plasma processing chamber aperture via a predetermined amount of pressure against a wall of said aperture.

14. (AMENDED) The device according to claim 12, wherein said lower section has a first length and said flange section has a second length.

15. The device according to claim 14, wherein said first length is greater than or equal to a length of a channel section of said plasma processing chamber aperture.

16. (AMENDED) The device according to claim 1, wherein an outer surface of said device forms an angle with reference to the bottom of said device.

17. The device according to claim 16, wherein said angle is non-orthogonal.

18. The device according to claim 1, wherein said physical signal comprises a spectroscopic endpoint detection signal.

19. The plasma processing chamber of claim 2, wherein said at least one aperture comprises an endpoint detection channel.

20. The device according to claim 1, wherein the electrically insulative material is selected from the group consisting of ceramics, multi-crystal ceramics, polyvinyl polymers, polytetrafluoroethylene, polyethylene, polypropylene, polyimides, polycarbonates and single crystal insulative minerals.